

Navy Case No. 84954

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

- 1 1. (Currently amended) A tandem drive system for a tracked
2 vehicle having a main track longitudinally extending in a closed
3 endless main loop on opposite sides and engaging a separate main
4 drive sprocket assembly, extending under roadwheels to a main
5 drive idler wheel, and back to said main drive-sprocket assembly
6 in said main loop, each main track having an inboard face on an
7 inward facing inner surface said tandem drive system comprising:
8 a secondary track engaging each main drive-sprocket assembly
9 and extending forward along the ~~track~~ tracked vehicle from each
10 main drive-sprocket assembly under only an aft-most fractional
11 portion of the roadwheels, each ~~said~~ secondary track being
12 configured as a closed endless secondary loop inside of said main
13 loop of each main track, and each secondary track being adjacent
14 to and laterally extending across the inboard face of a separate
15 main track where said main and secondary tracks are wrapped
16 around each main drive-sprocket assembly.

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1 2. (Original) The system of claim 1 wherein each secondary track
2 is shorter than each main track.

1 3. (currently amended) A tandem drive system for a tracked
2 vehicle having a main track longitudinally extending in a closed
3 endless main loop on opposite sides and engaging a separate main
4 drive sprocket assembly, extending under roadwheels to a main
5 drive idler wheel, and back to said main drive-sprocket assembly
6 in said main loop, said tandem drive system comprising:
7 a secondary track engaging each main drive-sprocket assembly
8 and extending forward along the tracked vehicle from each main
9 drive-sprocket assembly under only an aft-most fractional portion
10 of the roadwheels, said secondary track being configured as a
11 closed endless secondary loop inside of and shorter than said
12 main loop of each main track, ~~The system of claim 2~~ wherein each
13 main track is made of steel and has inwardly extending
14 longitudinally spaced-apart guide horns, and each secondary track
15 has a fiber reinforced flexible belt-like structure having
16 longitudinally spaced-apart openings correspondingly spaced with
17 respect to said guide horns.

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1 4. (Original) The system of claim 3 comprising:

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2 a tensioning apparatus mounted on each opposite lateral side
3 of the tracked vehicle in contact with a separate secondary track
4 to selectably exert a pushing, tensioning force on each secondary
5 track; and

6 a hub provided with annular outside surfaces on each main drive-
7 sprocket assembly, said tensioning force exerted by said
8 tensioning apparatus tightening each secondary track around each
9 drive sprocket assembly.

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1 5. (Original) The system of claim 4 wherein tightening of each
2 secondary track around each drive sprocket assembly frictionally
3 engages said annular outside surfaces of each hub of each main
4 drive-sprocket assembly to transfer rotary power to move said
5 secondary track and said tracked vehicle.

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1 6. (Original) The system of claim 3 comprising:

2 secondary sprockets having annular gear teeth extending from
3 a hub on each rear-mounted main drive-sprocket assembly; and

4 longitudinally spaced-apart holes in each secondary track,
5 said spaced apart holes in each secondary track being
6 correspondingly spaced apart with respect to said gear teeth.

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1 7. (Original) The system of claim 6 wherein said gear teeth
2 engage said spaced apart holes in each secondary track to
3 transfer rotary power to move said secondary track and said
4 tracked vehicle.

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1 8. (currently amended) A tracked vehicle comprising:

2 a main return idler wheel on opposite sides and at the front
3 of a tracked vehicle;

4 a main drive sprocket assembly on each of said opposite
5 sides mounted at the rear of said tracked vehicle;

6 roadwheels on each of said opposite sides, said roadwheels
7 being spaced apart from one another and located along the bottom
8 of said tracked vehicle;

9 a main track longitudinally extending in a closed endless
10 main loop on each of said opposite sides, each main track
11 engaging a separate main drive sprocket assembly, extending to a
12 separate main drive idler wheel, under said roadwheels, and back
13 to said separate rear-mounted main drive-sprocket assembly in
14 said main loop each main track having an inboard face on an
15 inward facing inner surface; and

16 a tandem drive system having a secondary track inside said
17 main loop of each main track, each said secondary track of said
18 tandem drive system engaging a separate each rear-mounted main

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19 drive-sprocket assembly, extending forward along the tracked
20 vehicle from each main drive-sprocket assembly under said
21 roadwheels, and defining a closed endless secondary loop inside
22 of and shorter than said main loop, and each secondary track
23 being adjacent to and laterally extending across the inboard face
24 of a separate main track where the main and secondary tracks are
25 wrapped around each main drive-sprocket assembly.

1 9. (Currently amended) The vehicle of claim 8 wherein said ~~tandem~~
2 ~~drive system comprises:~~
3 ~~secondary track engaging each rear-mounted main drive sprocket~~
4 ~~assembly and extending~~ extends forward under only an aft-most
5 fractional portion of said roadwheels, ~~said secondary track~~
6 ~~extending in said secondary loop.~~

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1 10. (Currently amended) A tracked vehicle comprising:
2 a main return idler wheel on opposite sides and at the front
3 of a tracked vehicle;
4 a main drive sprocket assembly on each of said opposite
5 sides mounted at the rear of said tracked vehicle;
6 roadwheels on each of said opposite sides, said roadwheels
7 being spaced apart from one another and located along the bottom
8 of said tracked vehicle;

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9 a main track longitudinally extending in a closed endless
10 main loop on each of said opposite sides, each main track
11 engaging a separate main drive sprocket assembly, extending to a
12 separate main drive idler wheel, under said roadwheels, and back
13 to said separate rear-mounted main drive-sprocket assembly in
14 said main loop, each main track having an inboard face on an
15 inward facing inner surface;
16 a tandem drive system having a secondary track inside said
17 main loop of each main track, each secondary track of said tandem
18 drive system engaging a separate rear-mounted main drive-sprocket
19 assembly, extending forward along the tracked vehicle from each
20 main drive-sprocket assembly under said roadwheels, and defining
21 a closed endless secondary loop inside of and shorter than said
22 main loop,
1 said secondary track extending forward under only an aft-most
2 fractional portion of said roadwheels, and each secondary track
3 being adjacent to and laterally extending across the inboard face
4 of a separate main track where the main and secondary tracks are
5 wrapped around each main drive-sprocket assembly ~~The vehicle of~~
6 ~~claim 9~~ wherein each main track is made of steel and has inwardly
7 extending longitudinally spaced-apart guide horns, and each
8 secondary track has a fiber reinforced flexible belt-like

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9 structure having longitudinally spaced-apart openings
10 correspondingly spaced with respect to said guide horns.

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1 11. (Original) The vehicle of claim 10 comprising:

2 a tensioning apparatus mounted on each opposite lateral side
3 of said tracked vehicle and in contact with a separate secondary
4 track to selectably exert a pushing, tensioning force on each
5 secondary track;

6 a hub provided with annular outside surfaces on each main
7 drive-sprocket assembly, said tensioning force exerted by said
8 tensioning apparatus tightening each secondary track around each
9 drive sprocket assembly.

1 12. (Original) The vehicle of claim 11 wherein tightening of each
2 secondary track around each drive sprocket assembly frictionally
3 engages said annular outside surfaces of each hub of each main
4 drive-sprocket assembly to transfer rotary power to move said
5 secondary track and said tracked vehicle.

1 13. (Original) The vehicle of claim 10 comprising:

2 secondary sprockets having annular gear teeth extending from
3 a hub on each rear-mounted main drive-sprocket assembly and;

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4 longitudinally spaced-apart holes in each secondary track,
5 said spaced apart holes in each secondary track being
6 correspondingly spaced apart with respect to said gear teeth.

1 14. (Original) The vehicle of claim 13 wherein said gear teeth
2 engage said spaced apart holes in each secondary track to
3 transfer rotary power to move said secondary track and said
4 tracked vehicle.

1 15. (Currently amended) A method of creating a tandem drive
2 system for a tracked vehicle having a main track longitudinally
3 extending in a closed endless main loop on opposite sides and
4 engaging a separate main drive sprocket assembly, extending under
5 roadwheels to a main drive idler wheel, and returning back to
6 said main drive-sprocket assembly in said main loop, each main
7 track having an inboard face on an inward facing inner surface
8 said method comprising the steps of:

9 engaging a secondary track by each main drive-sprocket
10 assembly; ~~and~~

11 extending said secondary track forward along the track
12 vehicle from each main drive-sprocket assembly under only an aft-
13 most fractional portion of the roadwheels; and

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1 configuring said secondary track as a closed endless
2 secondary loop inside of and shorter than said main closed
3 endless loop of each main track, each secondary track being
4 adjacent to and laterally extending across the inboard face of a
5 separate main track where said main and secondary tracks are
6 wrapped around each main drive-sprocket assembly.

1 16. (Currently amended) A method of creating a tandem drive
2 system for a tracked vehicle having a main track longitudinally
3 extending in a closed endless main loop on opposite sides and
4 engaging a separate main drive sprocket assembly, extending under
5 roadwheels to a main drive idler wheel, and returning back to
6 said main drive-sprocket assembly in said main loop, said method
7 comprising the steps of:

8 engaging a secondary track by each main drive-sprocket
9 assembly;

10 extending said secondary track forward along the track
11 vehicle from each main drive-sprocket assembly under only an aft-
12 most fractional portion of the roadwheels;

13 configuring said secondary track as a closed endless
14 secondary loop inside of and shorter than said main closed
15 endless loop of each main track;

1 ~~The method of claim 15 further comprising the steps of:~~

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2 providing inwardly extending longitudinally spaced-apart
3 guide horns on each main track; and
4 forming each secondary track from fiber reinforced flexible
5 belt-like structure having longitudinally spaced-apart openings
6 correspondingly spaced with respect to said guide horns.

1 17. (Original) The method of claim 16 further comprising the
2 steps of:

3 mounting a tensioning apparatus on each opposite lateral
4 side of the tracked vehicle in contact with a separate secondary
5 track to selectably exert a pushing, tensioning force on each
6 secondary track; and

7 tightening each secondary track on a hub provided with
8 annular outside surfaces on each main drive-sprocket assembly by
9 said tensioning force exerted by said tensioning apparatus.

1 18. (Original) The method of claim 17 further comprising the step
2 of:

3 frictionally engaging said annular outside surfaces of each
4 hub of each main drive-sprocket assembly by the step of
5 tightening each secondary track around each drive sprocket
6 assembly to transfer rotary power to move said secondary track
7 and said tracked vehicle.

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1 19. (Original) The method of claim 16 further comprising the
2 steps of:

3 providing secondary sprockets having annular gear teeth
4 extending from a hub on each rear-mounted main drive-sprocket
5 assembly and;

6 providing longitudinally spaced-apart holes in each
7 secondary track, said spaced apart holes in each secondary track
8 being correspondingly spaced apart with respect to said gear
9 teeth.

1 20. (Original) The method of claim 19 further comprising the
2 steps of:

3 engaging said spaced apart holes in each secondary track by
4 said gear teeth engage; and

5 transferring rotary power via the engaged spaced apart holes
6 and gear teeth to move said secondary track and said tracked
7 vehicle.

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